

CLAIMS

What is claimed is:

1. A wristwatch capable of storing and transmitting data comprises:

5 a timing indicating component;

a watch case; and

a watch band for fixing the wristwatch to people's wrist,

wherein, said wristwatch further comprises a circuit board assembly and a USB
connector assembly, said circuit board assembly is installed inside the watch case and
10 comprises a circuit board, on which are installed a Flash Memory and a CPU; said USB
connector assembly comprises connection cable and a USB connector, said connection
cable consists of data leads and power leads, which are used to connect the circuit
board with the USB connector, the USB connector is located outside the watch case,
said connection cable extends out of the watch case from an opening hole at the seam
15 between the watch case and the watch band, a water proof means is provided around
the opening hole; a housing means for housing and fixing the connection cable and the
USB connector is provided on said watch band.

2. A wristwatch according to claim 1, wherein, said water proof means comprises
a water proof gasket, a sheeting and a step structure of the watch case.

20 3. A wristwatch according to claim 2, wherein, said step structure of the watch
case consists of an inner step 1A and an outer step 1B; said water proof gasket is
installed at the step 1A, said sheeting is pressed to the step 1B and is fused with the
watch case; the internal diameter of the water proof gasket is smaller than the external
diameter of the connection cable after the water proof gasket is pressed and deformed

by the sheeting.

4. A wristwatch according to claim 2, wherein, said water proof gasket is in the shape of a circular ring, said sheeting is in the shape of a circular ring.

5 5. A wristwatch according to claim 2, wherein, said connection cable passes through an opening hole of said watch case, said sheeting and said water proof gasket in turn, extends inside the wristwatch and is connected to the circuit board.

6. A wristwatch according to claim 1, wherein, said watch band includes two sections 2A and 2B; said section 2A is undercutting according to the outline of the connection cable and the USB connector, so as to form a big through hole; said through
10 hole is divided into two segments: a longer segment and a shorter segment, wherein the longer segment is made to house and lock the connection cable, the shorter segment is formed to lodge the USB connector, so that the outside part of the connection cable and the USB connector are beset in the section 2A of the watch band.

7. A wristwatch according to claim 6, wherein, a tongue like positioning piece is
15 installed at the outside end of shorter segment of the section 2A of said watch band, so that said positioning piece extends into said USB connector and locks it in position.

8. A wristwatch according to claim 6, wherein, on section 2A of said watch band, a rib is installed for linking the two segments of the section 2A and securing the USB connector.

20 9. A wristwatch according to claim 6, wherein, said wristwatch further includes a loop, which is designed to fit the size of the USB connector, and can be slid along the watch band; several small pieces of projections are provided on both sides of said watch band at the shorter segment of the section 2A, and correspondingly several small concaves are provided on the inner surface of the loop, when the small projections are

engaged with the small concaves, the loop can be positioned precisely so as to clamp the USB connector in the groove of the shorter segment of the section 2A.

10. A wristwatch according to claim 1, wherein, said USB connector assembly further includes a water proof pushers, one end of said USB connection cable connects with said water proof pusher, the other end of it connects with the USB connector; said
5 water proof pusher is installed in the opening hole of the watch case, and extends inside the watch case of the wristwatch, then further connect with the flash memory circuit board assembly.

11. A wristwatch according to claim 10, wherein, said water proof pusher is
10 equipped with a water proof gasket, said water proof gasket fills the gap between the water proof pusher and the opening hole of said watch case.

12. A wristwatch according to claim 10, wherein, said USB connection cable is a four-core cable with four ends, said water proof pusher has four ends, each end of the water proof pusher connects with the end of one core of the USB connection cable; and
15 there are four opening holes in the watch case to house the water proof pusher.

13. A wristwatch according to claim 1, wherein, said watch band is wrapped with a cover which has a cavity for receiving the USB connector.

14. A wristwatch according to claim 13, wherein, said cover is moveable on said watch band.

20 15. A wristwatch according to claim 1, wherein, an opening hole, a groove and a cover are connected in turn and extend outwards in the watch case; said groove is used for housing the USB connector.

16. A wristwatch according to claim 10, wherein, the connecting point of said circuit board assembly is a spring bar, said water proof pusher also has a spring bar,

with which the water proof pusher connects with the circuit board assembly.

17. A wristwatch according to claim 10, wherein, the connecting point of said circuit board assembly is a conductive spring sheet, said water proof pusher connects with the circuit board assembly via said conductive spring sheet.

5 18. A wristwatch according to claim 10, wherein, said wristwatch is a digital watch with a LCD; said circuit board assembly further includes a time-control IC in addition to the flash memory and the CPU.

19. A wristwatch capable of storing and transmitting data comprises:

20 a timing indicating component including a time movement, hands, and a time dial,
etc;

a watch case including a case back, a lens, etc;

a watch band of two sections for fixing the wristwatch to people's wrist,

wherein, said wristwatch further comprises a microphone, an earphone socket, a USB connector assembly, a MP3 circuit board, a storage battery providing power when
15 playing music; said MP3 circuit board containing a flash memory and a MP3 CMOS chip; said USB connector assembly comprising a USB connector, a connector socket, a USB cable and some circuit connecting points;

said watch band having grooves for housing said USB connector, said connector socket, and said USB cable respectively, said watch band also having a colligated ring
20 for ringing the USB connector;

a concave step is made in each of the two sides of said watch case near the two sections of the watch band; said microphone and said earphone socket are installed on the concave step 611; the end of said USB connector assembly containing said circuit connecting points is installed on the other concave step 612 of said watchcase;

one water proof button 681, for connecting said MP3 circuit board with said microphone and said earphone socket, is installed under said concave step 611 of said watchcase; another water proof button 682, for connecting said MP3 circuit board with said circuit connecting points of said USB connector assembly, is installed under said
5 concave step 612 of said watchcase; said water proof button 681 and said water proof button 682 extend to said concave step 611 and said concave step 612 respectively through the corresponding hole of said watchcase; one gasket is placed between said water proof button 681 and said hole of said watchcase, another gasket is placed between said water proof button 682 and said hole of said watchcase.

10 said circuit connecting points of said USB connector assembly connects with said water proof button 682 of said concave step 612.

20. A wristwatch according to claim 19, wherein a reflect light circle around said hands is below said lens; a LED control circuit board containing LED lamps for showing working state of said MP3 circuit board is under said reflect light circle.

15 21. A wristwatch according to claim 20, wherein some fluorescence points are made on the surface of the reflect light circle; said LED lamps are placed under said reflect light circle.

22. A wristwatch according to claim 19, wherein some buttons for controlling the working state of said MP3 circuit board are provided at the side of said watchcase.

20 23. A wristwatch according to claim 19, wherein said MP3 circuit board connects with said LED control circuit board .

24. A wristwatch according to claim 19, wherein said concave step 612 of said watchcase includes screw holes; a gasket around said water proof button 682 is placed on said concave step 612; said end containing circuit connecting points of said USB

connector assembly can be made as a cover form matching the concave step 612 of the watchcase; said cover has two screw holes matching the screw holes of the concave step 612; said gasket is filled between said cover and said concave step 612.

25. A wristwatch according to claim 19, wherein said MP3 circuit board is placed
5 under said movement; said storage battery is placed between said MP3 circuit board and said watch case back;

26. A wristwatch according to claim 19, wherein said storage battery obtains power via the USB connector.

27. A wristwatch according to claim 19, wherein said wristwatch further includes
10 two small circuit boards; one of said small circuit board around said water proof button 681 provides some circuit connecting points for connecting said microphone and said earphone socket; the other one around said water proof button 682 connects said circuit connecting points of said USB connector assembly.